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REPORT

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THIS IS UNEVALUATED INFORMATION

SOURCE De Waarheid

ACTIVITIES OF USSR LABORATORY OF SOLAR TECHNOLOGY

/Comment: The following information on experimentation with solar energy in the USSR is taken from the Dutch Communist daily newspaper De Waarheid of 25 July 1953. According to the report, experimentation has progressed from research to practical application of solar energy in such fields as conversion of brackish water into fresh water, production of ice, smelting and welding, firing of pottery, and heating./

The Laboratory of Solar Technology, which is under the Power Engineering Institute of the Academy of Sciences USSR, has been engaged during the past year in numerous research activities which promise to be of great value to the southern areas of the USSR.

In a laboratory in Tashkent, an apparatus was tested which produces 12 liters of fresh water per day from brackish ground water. The large boiler of the apparatus is heated by solar energy, and the salt is eliminated in three phases. The cost of the product is 30-40 percent lower than if produced with fuel-oil firing. The construction of an efficient solar apparatus has made it possible to plan a number of drinking places for sheep in the Kara Dum desert.

Successful experiments have been conducted to produce significant quantities of ice by means of solar energy. The apparatus produces 20 kilograms of ice per hour, and the production cost is expected to drop to a fraction of the former cost after a few technical problems have been solved.

Experiments on the smelting and welding of metals have revealed great possibilities for the technical application of solar energy. An apparatus furnished with a parabolic mirror 2 meters in diameter brought very good results in the welding of strip iron. No electrodes are needed, and the welded seam

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is narrow. The apparatus automatically follows the movement of the sun. The firing of pottery will be started shortly with a similar apparatus which will be equipped to produce temperatures of up to 3,000 degrees centigrade.

The application of solar heating for central heating [of dwellings] opens great perspectives. Furthermore, the Laboratory of Solar Technology has developed a cooking device whereby a concave mirror one meter in diameter is aimed at a pan or pot to be heated. The apparatus gives the same service as a 500-watt electric stove.

Solar heaters for swimming pools, laundries, bathhouses, and showers are already in use in many places. They heat the water to 50-55 degrees centigrade and are of simple and cheap construction.

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